

IMPROVED RATE-ADAPTIVE THERAPY WITH AUTOMATIC
LIMITING OF MAXIMUM PACING RATE

Abstract

5 A system and method for automatically adjusting the operating parameters of a
rate-adaptive cardiac pacemaker in which maximum exertion levels attained by the
patient are measured at periodic intervals and stored. The stored maximum exertion
levels may then be used to update a long-term maximal exertion level, and the slope of
the rate-response curve is adjusted to map the updated long-term maximal exertion level
10 to a maximum allowable pacing rate. In accordance with the invention, the rate response
curve is defined such that an exertion level corresponding to the patient's maximum
exercise capacity would be mapped to a physiologically favorable maximum rate that is
independent from a specified maximum sensor indicated rate.

"Express Mail" mailing label number: EL618436194US

Date of Deposit: September 8, 2000

This paper or fee is being deposited on the date indicated above with the United
States Postal Service pursuant to 37 CFR 1.10, and is addressed to the
Commissioner for Patents, Box Patent Application, Washington, D.C. 20231.